

Work Order ID 141481 -1

141481

Friday, February 05, 2016 8:00:10 AM

Page 1

Item ID: D412-705-017

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: N1 Gearbox Access Panel

Stop *NS2*

Start Date: 1/28/2016 Start Qty: 3.00 *3*

Cust Item ID:

Required Date: 2/3/2016 Req'd Qty: 3.00 *3*

Customer:

Reference:

Approvals: Process Plan: MCS Date: FEB 08 2016 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3255	Rev B								
IIN-D412-705	E								

100 Document Control 0.00
DOCUMENT CONTROL
Memo 0.00
Doc.Control -USB or Paperwork Photocopy bluefile & type labels per PPP D412-705-017 CHG001

100

DC

DAS
9
9-89

① 16.02.13

110 Pick Kit 0.00

110

Packaging

Memo 0.00

Packaging

② 16.02.13
FEB 17 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification. QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		☐ OTHER : _____							

Work Order ID 141481

Friday, February 05, 2016 8:00:10 AM

141481

Page 2

Item ID: D412-705-017

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: N1 Gearbox Access Panel

Stop ***NS2***

Start Date: 1/28/2016 Start Qty: 3.00

3

Cust Item ID:

Required Date: 2/3/2016 Req'd Qty: 3.00

3

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC4- 100% Inspect kits for completeness	0.00				/	16-02-13		DAS 9 9-89
120									
QC	Memo	0.00							
Quality Control									
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-705-017 Location : FG027								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

sold

SMJ
10/2/18

MCS

FEB 18 2016

MCS

FEB 18 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐ _____							

Picklist Print

Friday, February 05, 2016 8:00:13 AM

Page 1

Work Order ID: 141481

141481

Parent Item: D412-705-017

D412-705-017

Parent Item Name: N1 Gearbox Access Panel

Start Date: 1/28/2016

Required Date: 2/3/2016

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP Rev:C Removed Manufacturing 06-08-02 JLM
IPP Rev:D ECN 1052 07-11-06 DD verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN3C3A		Purchased	No			110	Each	282.0000	30	90			
--------	--	-----------	----	--	--	-----	------	----------	----	----	--	--	--

AN3C3A

Bolt

DAS
9
9-89

Location

Loc Qty

Loc Code

GA
m132930
OVER002
m134055
ST350
m132930
m133990

46
46
75
75
161
86
75

**

DAS
6
9-89

D3255-041

Manufactured No

110 Each 0.0000

1

3

D3255-041

Access Panel Assy LH

DAS
9
9-89

**

129998 x 1

D3255-042

Manufactured No

110 Each 4.0000

1

3

D3255-042

Access Panel Assembly

DAS
9
9-89

**

129908

Location

Loc Qty

Loc Code

ST489
127416

4
4

3

DAS
6
9-89

MS20427M3-3

Purchased No

110 Each 1,009.000

36

108

MS20427M3-3

Rivet

DAS
9
9-89

**

Location

Loc Qty

Loc Code

GA
m132256
m133577

1009
11
998

108

DAS
6
9-89

DAS
27
9-89

FEB 18 2016

DAS
6
9-89

DAS
6
9-89

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Friday, February 05, 2016 8:00:13 AM

Page 2

Work Order ID: 141481

141481

Parent Item: D412-705-017

D412-705-017

Parent Item Name: N1 Gearbox Access Panel

Start Date: 1/28/2016

Required Date: 2/3/2016

Start Qty: 3.00

Required Qty: 3.00

MS21060-L3K

DAS Purchased

No

110

Each

185.0000

18

54

***MS21060-L3K*9**

Nut Plate

9-89

DAS
6
9-89

27
9-89

Location

Loc Qty

Loc Code

GA

45

m127836

7

m131467

1

m132256

37

ST300

121

131677

2

m133922

119

ST302

19

m131187

19

54

MS9321-09

DAS
9
9-89

Purchased

No

110

Each

402.0000

30

90

MS9321-09

Washer

DAS
6
9-89

27
9-89

Location

Loc Qty

Loc Code

ST260a

250

m133990

250

ST267

50

m133932

50

ST273

102

131677

102

90

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

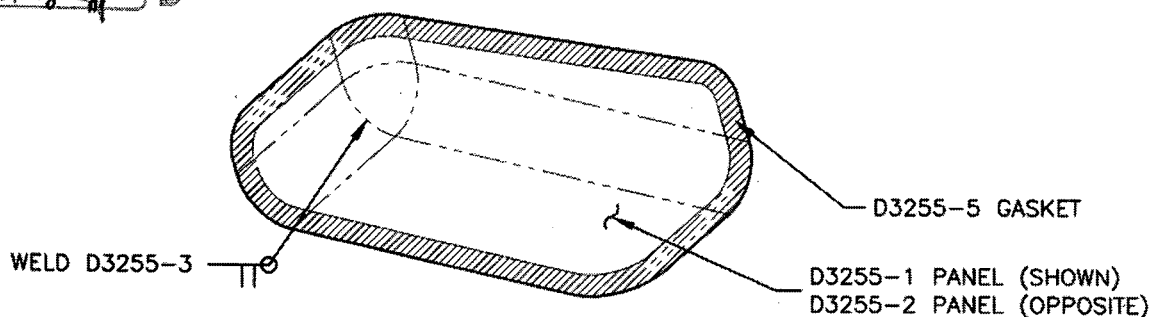
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

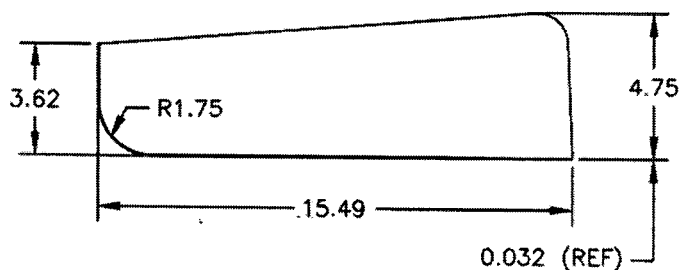
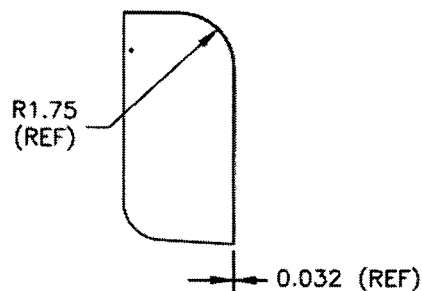
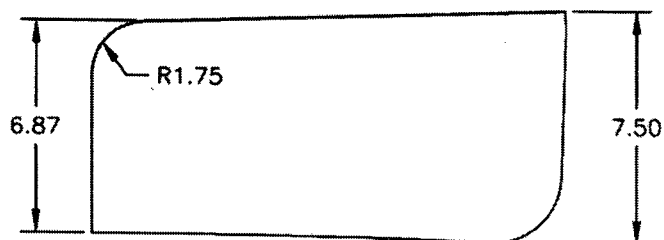


DESIGN F#	DRAWN BY F#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED UP	APPROVED [Signature]	DRAWING NO. D3255	REV. B SHEET 1 OF 4
DATE 04.12.06		TITLE ACCESS PANEL ASSEMBLY	SCALE 1:6
A	04.01.27	NEW ISSUE	
B	04.12.06	D3255-3 REDESIGN; ADDED $\phi 0.098$	

RELEASED
05.01.18



D3255-041 ACCESS PANEL (SHOWN)
D3255-042 ACCESS PANEL (OPPOSITE)



D3255-1 BEND DETAIL
D3255-2 OPPOSITE

D3255-041/-042 NOTES:

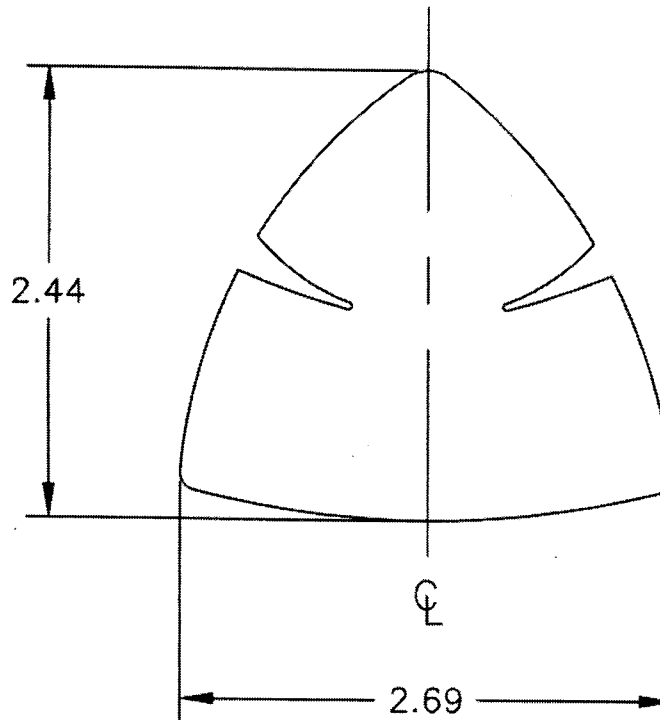
- 1) WELD PER DART QSI 004
- 2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER QSI 005 4.3
- 3) INSTALL D3255-5 GASKET USING DOW CORNING P/N 736 ADHESIVE IN ACCORDANCE WITH MANUFACTURE'S INSTRUCTIONS
- 4) IDENTIFY WITH P/N & B/N USING FINE POINT PERMANENT MARKER

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DART

DESIGN RF	DRAWN BY JF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CP	APPROVED JF	DRAWING NO. D3255	REV. B SHEET 2 OF 4
DATE 04.12.06		TITLE	SCALE 1:1

RELEASED
05-01-18 JF

D3255-3 CAP
FORM TO FIT D3155-1/-2

D3255-3 NOTES:

- 1) MATERIAL: AISI 304/316 SS 0.032 THICK (REF. M304S22GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 6) MAKE PER DRAWING "D3255-B2.DWG"

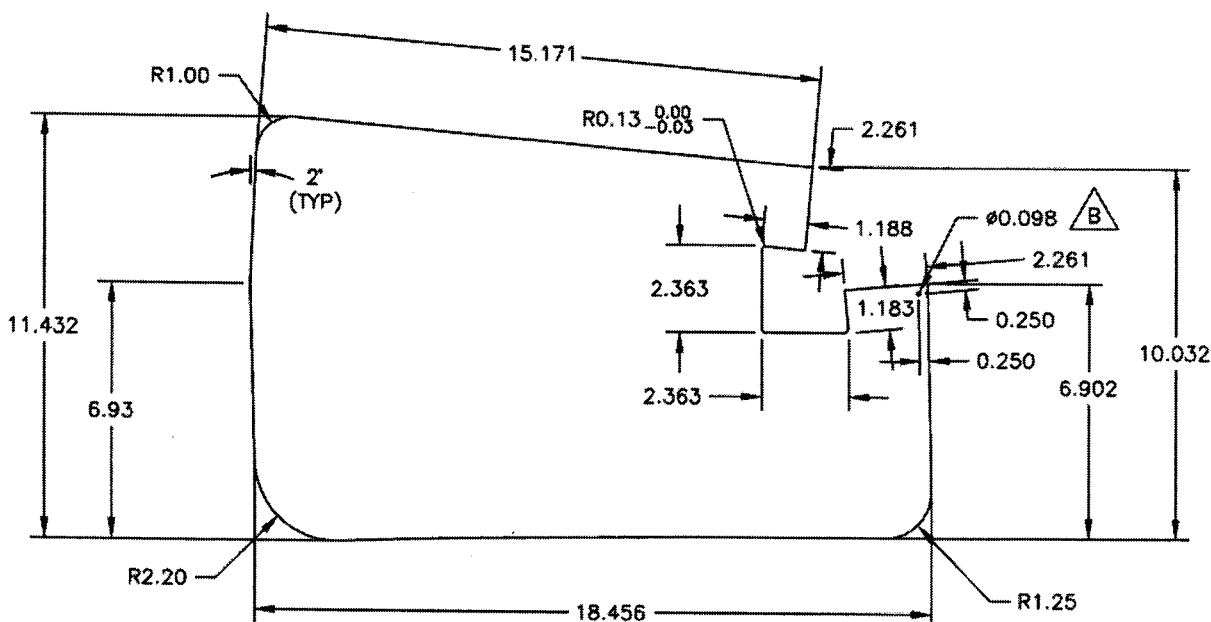
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DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED UP	APPROVED JH	DRAWING NO. D3255	REV. B SHEET 3 OF 4
DATE 04.12.06		TITLE ACCESS PANEL ASSEMBLY	SCALE 1:5

RELEASED
05-01-18 JH



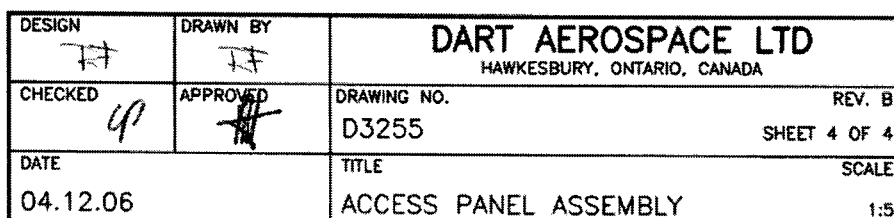
D3255-1/-2 FLAT PATTERN

D3255-1/-2 NOTES:

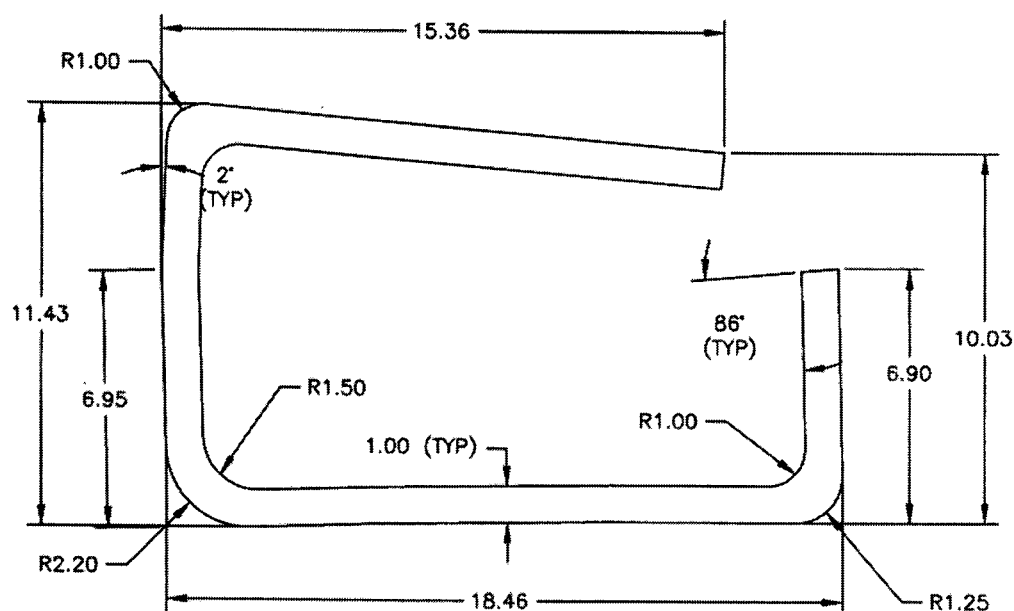
- 1) MATERIAL: AISI 304/316 SS 0.032 THICK (REF. M304S22GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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RELEASED
05-01-18



D3255-5 GASKET

D3255-5 NOTES:

- 1) MATERIAL: SILICONE COATED FIBERGLASS CLOTH PER AMS 3320F
P/N SIL/F 36x36x1/16
POSSIBLE SUPPLIER: AVIALL
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

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DART AEROSPACE LTD.

DAS
9
1889
REFERENCE ONLY
16-02-18

IIN-D412-705

Page 16 of 16

5.0 PARTS LIST

Qty -011	Qty -013	Qty -015	Qty -017	Qty -019	Qty -021	Qty -023	Part Number	Description
X							D412-705-011	TWIN PAK E-Z ACCESS KIT
1	X						D412-705-013	INTAKE PLENUM ACCESS PANEL KIT
1		X					D412-705-015	DRIVESHAFT TUNNEL MODIFICATION KIT
1			X				D412-705-017	N1 GEARBOX ACCESS PANEL KIT
1				X			D412-705-019	C-BOX OIL COOLER LINE SUPPORT ACCESS KIT
1					X		D412-705-021	OIL PRESSURE TRANSMITTER ACCESS KIT
1						X	D412-705-023	OIL COOLER SUPPORT REMOVABLE LOWER PANEL KIT
	1						D3245-041	ACCESS PANEL ASSEMBLY, LH
	1						D3245-042	ACCESS PANEL ASSEMBLY, RH
	2						D3245-043	DOOR ASSEMBLY
	2						D3245-9	GASKET
	2						D3245-11	GASKET
	2						D3245-13	GASKET
			1				D3255-041	ACCESS PANEL ASSEMBLY, LH
			1				D3255-042	ACCESS PANEL ASSEMBLY, RH
		1					D3256-1	ACCESS PANEL
		1					D3256-3	GASKET
				1			D3259-041	ACCESS PANEL ASSEMBLY, LH
				1			D3259-042	ACCESS PANEL ASSEMBLY, RH
					1		D3307-041	ACCESS PANEL ASSEMBLY
						30	AN3-3A	BOLT
		22	30		6		AN3C-3A	BOLT
		3					AN3C-4A	BOLT
						30	AN960JD10	WASHER
	16	44	36		12		MS20427M3-3	RIVET
						2	MS21051-L3K	NUT PLATE
	8	22	18		6		MS21060-L3K	NUT PLATE
						18	MS21069-L3K	NUT PLATE
		25	30		6		MS9321-09	WASHER

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Revision: E
Date: 13.10.07